ECONOMICS AND EPISTEMOLOGY and the shortcomings of scientific knowledge

Luis L. Denari

"The future is ours, through sheer hard work" (Roberto Arlt)

I. CAN'T IT BE KNOWN?

Nothing could be more obvious when making a statement in economics than that a particular form of scientific knowledge is being used.[1] However, few economists can articulate a sound basis for this. University economics degrees worldwide consist of a sequential series of courses that, from the outset, fragment what they are supposed to understand, lacking even the most basic unity of content.[2] The generic knowledge that a "methodological" course might provide[3] is lost in a nebula of definitions and empty formalism. The demands of daily life and the search for job opportunities gradually bury any interest in this problem, and finally, once a certain position has been secured in the profession, the need to maintain and develop it definitively extinguishes any lingering curiosity of this kind, now seen as a youthful preoccupation.

For their part, the philosophy of science, the theory of knowledge, and epistemology, through their innocuousness, contribute to discouraging any exploration of these fields. If in the last decade some of their most prominent representatives—such as Popper, Kuhn, Toulmin, Prigogine, Lakatos, and Feyerabend, to mention only the most popular in our circles—have become fashionable, it has been to spread the notion of the impossibility of knowing. This notion has been popularized in the so-called "crisis of paradigms," a predicament that the most astute economists have extended to their own discipline, without major repercussions.

But we're not simply referring to "theoretical" economic assertions. When it comes to formulating or criticizing specific policies, the arguments employed

---

[1] It includes specific criteria of causality, truth, totality, etc.; it presupposes certain relationships between theory and reality, between subject and object, etc., etc.

[2] "Micro" and "macroeconomics" are the most visible and blatant example . With them begins the dismemberment of the evidence.

[3] Commonly presented as an external topic to the knowledge process itself, when they are not reduced to a formal enumeration of techniques and procedures for collecting and ordering data.

also incorporate a form of scientific knowledge, which few can account for with any real authority. And action based on dubious claims is almost a blind action.

Growth or stability

Let's take a simple example from the many discussions about our daily reality: "Stability is a necessary condition for economic growth," some say. Others claim, "Growth is the key to achieving stability." So, what should we prioritize: the stability of key variables or expansionary policies?[4]

On what arguments do they base their claims? There are those who like to feel supported by historical experience: in such and such countries, on such and such occasions, it was done this way and the result was successful. From this, it follows—and seems entirely logical—that the same must be done here. But this way of arguing has at least two drawbacks: the first is that it is almost always possible to find opposing examples, and when these are not readily available, nothing prevents one from thinking that perhaps this is a unique, unrepeatable case requiring a novel solution. The second, even more complicated, is how to legitimize a standardization of the main characteristics and starting points between those experiences taken as examples and the country in question.

Another path, a longer detour, is to rely on a theory. Here, the defense of the claim is mediated. Now it is the theory that must be substantiated. And this is generally supported by historical examples that confirm it, which brings us back to the previous case. Furthermore, even if the theory shows empirical verification to date, it remains to be seen whether it will also apply to a new case. In reality, the fact that a situation is systematically followed by a result is not enough to assert that there is a cause-and-effect relationship between them. It may happen that, once that situation occurs, the course of events will be different, and the theory used will lose its general applicability, even calling into question what was previously believed to be known.

But this is only part of the problem. Let's accept, for a moment, that a single conclusion has been reached: statement "A" is correct, and that certain policies follow from it. Will they be implemented? Let's look at the two

---

[4] We've simplified for the sake of brevity, knowing that other possible answers would raise the same questions we'll see shortly. On the other hand, note that in these kinds of debates, it's common to overlook the reasons for stagnation and sharp fluctuations, as if changing this reality depended simply on implementing the right policies. We'll see later what this kind of reasoning entails.

possibilities: the first is that they are implemented. If the result is positive, those who championed that policy will believe their positions have been confirmed and will see themselves as responsible for the success achieved; several books will be written about it, and we will see them pontificating about the merits of that course of action far and wide. In the event that that same policy is implemented unsuccessfully elsewhere, or even in the same place but under different conditions, they will always have grounds to believe that it was not implemented correctly or at the wrong time. But furthermore, how can we know, for example, if other factors, not considered in the analysis, were not actually responsible for the results?[5]

Conversely, if these policies were implemented but the results were unfavorable, the reasons for failure could be attributed to other circumstances seen as unrelated to the strictly economic proposal: that the ruling party prioritized "political" objectives, that "vested interests" opposed them, that implementation was too slow due to parliamentary delays, or simply that the people didn't understand them. But then, when is an economic policy "correct" for a given problem? How can the influence of other aspects of reality be factored in? Can human behavior be taken into account?

The second possibility is that the policies considered most appropriate will not be implemented. Here, we will hear the same arguments as those who did implement them but failed to achieve results, and the same questions posed previously will apply to them.

It is not possible to know

Note that in this simple example we have encountered, on the one hand, several problems implicit in the arguments: how to support a claim about reality;

[5] The following anecdote, and its moral, illustrates this type of misunderstanding: when the first Europeans arrived in Patagonia, they were struck by the way some Indigenous peoples prayed for rain. The prayer consisted of a ceremony in which a group of them danced, swaying rhythmically. Much later, it was discovered that what they were doing was imitating the movement of rheas, which, incredibly, preceded the arrival of rain with remarkable regularity. The ancient inhabitants of the area established a cause-and-effect relationship between the dancing and rainstorms, and acted accordingly. Subsequent studies of these animals showed that the process of change in atmospheric pressure, which precedes rainfall, affected their equilibrium system and caused them to move in that way. How many finance ministers have we seen swaying to break a drought! And if, by chance, they get a downpour, the least they promise us is perpetual humidity.

what relationship exists between historical facts and current circumstances; how theories are constructed and validated; what relationship exists between the economy and social life in general; what links are established between the one who wants to know and that which is to be known, etc. On the other hand, we have found general characteristics of unprovability and precariousness in the discourses, which are not irrelevant. These circumstances are what have led experts to maintain the impossibility of knowing.

But at this point, we might ask ourselves if it's really necessary to have answers to these questions in order to act within the discipline. After all, economic activity continues unabated; thousands of policies are being implemented around the world right now without these questions having been sufficiently answered; hundreds of universities teach what we are questioning as valid; and tens of thousands of students are learning to follow that path despite it.

We will continue with other examples to show that this is not a problem that only affects minor discussions but entire theoretical frameworks.

Prebisch and the consecrated

We have chosen, first of all, a well-known text on Latin American reality: "Peripheral Capitalism: Crisis and Transformation," by Raúl Prebisch. Right in the introduction, he tells us that "the phenomena of development cannot be explained solely by an economic theory; we must arrive at a global theory that integrates all the elements of the world capitalist system" [Prebisch, 1981, p. 30]. Now, among these "elements," of crucial importance—it could not be otherwise—are the so-called "social actors," without whom our "peripheral" economies would not exist. And what does he tell us about this?: "How do these actors emerge in the system? The elements we have been discussing in these writings do not give us the key, which perhaps can be found in related theories of the wave-like movement of ruling groups. Or will it be necessary to undertake anthropological explorations to understand these phenomena of human behavior?" [*Ibid* ., p. 175].

A confession is all the proof needed: the claimed "global theory" falls apart because it lacks a fundamental ingredient. The entire discourse is revealed as incomplete. Those who have the power to "increase the rate of accumulation of reproductive capital, especially at the expense of the consumption of the upper strata," to have "the State regulate the social use of the surplus...without

concentrating ownership in its hands," to proceed with the "transformation of the system" [*Ibid* ., p. 47]—all our transformer can do, we tell them, is advise us to…reread the outdated and naive Pareto theories or to dedicate ourselves to anthropology![6] What support can possibly remain for their proposals?

But do other economists do anything different? The entire marginalist theoretical framework rests on a supposed "rational" and "optimizing" behavior of economic agents, who, in the vast majority of cases—just look at the world's population as a whole—are not at all well-off being so "optimistic." Champions of empirical evidence when it suits them, idolaters of the undeniable reality of the market, when they have to explain what lies ahead they take refuge in mysticism, while each of the pillars on which they build their policies collapses under its own weight. E. J. Mishan, Nobel laureate in Economics, had no qualms about stating: "After all the display of technical virtuosity associated with such theorems [referring to those used to establish consumer behavior, LLD], the practicing economist is left with little that can help him cope with the complexities of the real world. In fact, it would do him no harm to remain ignorant of all theories of consumer behavior, and to accept as an act of faith the obvious and indispensable 'law of demand'" [Mishan, 1961].

The weakness of economic theories is widely acknowledged. Sir John Hicks attempted to sidestep the issue gracefully by saying, "There are few economic 'laws' that can be considered firmly grounded" [Hicks, 1981, p. 24], without, of course, risking naming them to avoid exposing them to debate. Axel Leijonhufvud pointed out that "the imperfect correspondence between models of economic theory and those that are vehicles of empirically quantitative work expresses the serious difficulty of both decisively falsifying and convincingly confirming economic theories. In economics, the most opposing theoretical traditions remain alive" [Leijonhufvud, 1976, p. 77]. Milton Friedman's positions defending the "irrelevance of assumptions" are well known, and Joan Robinson, for her part, told us that "Economics is limping along with one foot on untestable theories and the other on untestable signs" [*Robinson* , 1962, p. 25].

---

[6] That is why, when at the end of the book, with a certain bitterness, he asks: "What has happened to economists? Have their ranks not been joined by minds as brilliant as those that have driven other scientific activities?" [Ibid., p. 325], if they have followed his recommendations, they must be delayed in joining, following the undulating movements or digging some grave.

What consistent economic policy proposals have these gentlemen been able to offer, with their lament about the serious difficulties in understanding reality?

It happens everywhere.

It might be pointed out that the examples provided have focused on authors who are by no means dissidents. But economists to the left of that spectrum—whether they hold heterodox, Third Worldist positions, or claim to be Marxists—have nothing very different to offer. The theories they construct, and from which they proceed, present the same problems of foundation and verification as their rivals. Most include the "social" aspect in their analysis,[7] but they don't go any further than Dr. Prebisch. A trend of the last decade—extended in other disciplines as well—has been to privilege the dimension of "power," which they consider fundamentally important for explanations in economics. Thus, studies on economic groups, power groups, and even spaces of power have proliferated. But what they have left unexplained...is power itself.[8]

Something similar happens to the European Marxist theorist Ernest Mandel when he speaks of the USSR. For him, "the Soviet economy… is a hybrid combination of an allocative economy and a commodity production system, in which the law of value does not govern but does have an influence." But if "the law of value does not govern," what orders the life of Soviet society? "It is not the law of value but the decisions of the political leadership that ultimately determine the master proportions of the distribution of the social product and the dynamics of the economy as a whole" [Mandel, 1984, p. 87]. Thus, for this author, it is the bureaucracy that ultimately determines the dynamics of social production. And what determines what the bureaucracy decides? As we can see, Dr. Prebisch's enigma of "social actors" is here transformed into that of the Mandelian "bureaucracy."

Is anything goes, or is something better than nothing?

We have tried to show the relevance of these problems that economists encounter, problems that are not specific to their discipline but rather to scientific

---

[7] Here, the "social agents" become the "social classes", the "people" and the "oligarchy", etc., with similar unknowns.

[8] Many years ago, Michael Foucault was also excited about these searches: "We know perfectly well that it is not the rulers who hold power. However, the notion of a ruling class is neither clear nor very elaborate. Dominate, direct, govern, power group, state apparatus, etc.; here is a set of notions that ask to be elaborated" [Foucault, 1983, p. 127].

thought in general as it is used today. Blaug, who has taken an interest in the subject, summarizes it thus: “Science is characterized by its method of formulating testable propositions, and not by its content, nor by its claim to certainty in knowledge; if science provides any certainty, it will rather be the certainty of our ignorance” [*Blaug*, 1985, p. 31].

Faced with this situation, one possible attitude is indifference. One need only read published economic works to recognize how widespread this attitude is. Not feeling personally affected by these arguments allows one to assert whatever one wishes, the only restriction being the capacity to imagine. Another response, given that knowledge is impossible, is to develop a set of rules to help separate the wheat from the chaff, because something is better than nothing. This involves trying to place Economics in a respectable position within science, bridging the gap with other, more “rigorous” disciplines. This preference, which tends to be shared by economists committed to their work, rests on the hope that, despite everything, by following these rules, something can be known.

In our field, the treatment of this issue is almost nonexistent. In recent years, we have found only two articles [Figueras-Benavídez, 1988, and Borrello, 1988][9] that, while addressing and disseminating the problem, merely summarize exhausted debates without offering alternatives outside that framework.

The option is not "anything goes" or "better than nothing." The currently widespread form of scientific knowledge has reached this impasse without even questioning its own rules. For those still interested in the topic and seeking an alternative path, we invite you to take the next step and join us for the second part of this article.

II. SOME BASIC QUESTIONS.

The main contemporary attempts to overcome these problems have come, to a large extent, from the "hard" sciences. However, by not questioning the foundations upon which the prevailing theories of knowledge rest, the debates end up being different versions of the same thing. In that sense, questioning these rules is a necessary step. As will be seen toward the end of this work, we

---

[9] The journal Mercado de Capitales, May-August 1988, published an article that, judging by its title—"Ideas for an Introduction to the Epistemology of Economic Laws"—seemed relevant but turned out to be an advertisement for the local stock exchange. 10. Here we develop a very basic version, geared toward the usual way economists understand and propose these ideas in their discipline.

are not going to invent anything new. We are merely revisiting another form of knowledge, one that is more than a century old, to reopen a substantive discussion.

We will briefly review how scientists work and then apply the significant limitations commonly imposed on them by theories of knowledge to an "economic" example. Afterward, we will point out other serious, and often overlooked, drawbacks of this approach and conclude with some reflections that offer a way out of this apparent impasse.

How do we try to understand?

What do scientists do when faced with a problem they want to understand?[10] They select those elements of reality that, in principle, seem relevant to the existence of the situation they want to explain. Each of the chosen phenomena—for the purpose of identifying its behavior—is conceptualized in such a way that it can be compared, generally expressed in a specific measure. Only then are they in a position to look for correlations between these phenomena. If none are found, they look for others, or they reconceptualize those already considered to measure different attributes of these phenomena. They continue in this way until they find some significant association between them, showing a certain regularity.

The time has come to formulate hypotheses about the types of relationships that exist between these phenomena, for example, which are causes and which are effects (this is fundamental if we want to act upon this reality). A set of initial conjectures can become, through their articulated insertion within a more or less coherent and complete deductive structure, a scientific theory, and this will be systematically tested against new observations of the reality it addresses. This continues until the reality itself refutes the theory, and the process repeats.

Since the scientist already has a series of theories developed in this way, when faced with the problem he has to address, he does not need to repeat the steps taken previously but can resort to the conceptual framework already developed that he considers most suitable for his task.

---

[10] Here we develop a very basic version, geared towards the usual way economists understand and propose in their discipline.

The search process hinges on the criteria for selecting relevant phenomena, the ability to record them for comparison, the discovery of systematic correlations, and, finally, attributing relationships between them via hypotheses. Whether the approach has been predominantly inductive (starting from a set of singular facts and generalizing), deductive (beginning with conjectures about the facts and inferring particular behaviors), or a combination of both, the central element is to contrast the theory, law, or assertion with reality, comparing its empirical implications with observed facts. If the problem of action arises, action itself could be considered another phenomenon to be included in the analysis, with all the corresponding limitations.

Let us examine, applied to a specific issue, the "criticisms" made by prevailing theories of knowledge to this way of approaching problems.

An “economic” example

Let's take the chronic fiscal deficit (CFD) in Argentina as an example. It can be measured in various ways, its year-on-year variations observed, but all it will indicate is its size and its persistence and fluctuations over time. To gain further insight, it's often compared to a different phenomenon.[11] For instance, given that governments directly control public finances, we might examine whether the existence of a CFD is associated with a generation of "statist" politicians. If this type of leadership and fiscal imbalances systematically coexist—and, moreover, if other countries exhibit "privatizationist" leaders and "healthy" finances—then, based on empirical verification, we can hypothesize that the ideas of "statist" parties lead to the CFD. Following this line of reasoning, if the goal is to address this public imbalance, the only solution is to put "privatizationist" leaders in charge of the government. And that's that.

Alongside this discourse, others can be constructed. For instance, one that posits a different phenomenon vis-à-vis the DFC: national economies facing severe structural impediments to development. If these two phenomena systematically coexist—and, moreover, if development and sound financial systems are observed in other nations—then, in our country, not a shred of precision has been added to the subject. Such confusions are typical when

[11] Some believe that analyzing the components of the DFC (Deferred Consumption Fund) reveals more; for example, the evolution of expenditures and revenues. But that only shows us one way in which the DFC manifests itself. It adds nothing to our understanding of its existence. In any case, the question now should be about those public expenditures and revenues.

models are employed to represent a problem and identify solutions. There is no doubt that there is a greater "healthy" social structure—it is now possible, based on the empirical verification of these facts, to hypothesize that poverty leads to financial hardship. Following this reasoning, if we want to address this public imbalance, the only option is to develop the country. That's all.

Both positions, according to the current state of scientific knowledge, suffer from similar problems that render them entirely inconsistent. Let's examine how these problems arise.

What phenomena might be associated with DFC? Just as two have been mentioned, many more could be found. How long should the search continue? Why not consider that there's always something left unexamined? Furthermore, each new aspect introduced necessitates a reconsideration of the role of the previous ones. The only course of action, as long as the existing explanation remains unsatisfactory, is to seek out new phenomena for analysis.[12]

With this question only provisionally answered, we move on to the next: can phenomena always be measured in order to be correlated? By adopting certain criteria, the Federal Development (FD) can be quantified, as can certain variables that demonstrate a country's stagnation. But a "statist" leadership does not lend itself to easy measurement and requires a laborious—and not always clear—process of definitions, and an equally arduous task of empirical verification. This is even more true when considering more complex factors, such as "dependency," "class struggle," "rationality," or "expectations," all seen as potentially associated with the FD. In cases where this obstacle can be overcome in some practical way and the phenomena under consideration can be correlated, significant associations between them will be sought. This will be a process of trial and error, until some aspect of reality is found that is correlated with the issue that we are concerned with understanding.

Even with these problems precariously resolved, new ones would emerge. A significant association between two phenomena does not always imply their constant presence. Often, only a certain regularity can be found between them.

---

[12] In the case of the DFC, there is a study by Heymann and Navajas [1989 and 1990] that points out the distributive struggle over government transfers, which would not be carried out cooperatively but rather through bilateral pressures; Argentine fiscal policy would result from this circumstance. In general, and they themselves agree, analyzing the association of a given phenomenon with a new aspect that had not been sufficiently considered until then is seen as a "contribution" to its explanation. We shall see what this "contribution" actually means.

Therefore, the possibility remains that they will not be repeated in every case. One need only find a country with a financial crisis (FC) without "statist" leadership, or with development, to call into question the degree of their correlation. But even if this correlation were total, it would only increase the likelihood of its recurrence. Nothing indicates, except that they have always been associated until now, that they will be again.

Various confusions

Ignorance of fragile phenomena results from this approach to knowledge, and it often increases researchers' confusion. Is it a "contribution" to understanding the DFC (Disruptive Functional Control) to analyze a new phenomenon that has some correlation with it? That is, if up to this point a certain regularity has been found between the DFC and phenomenon "A," and someone shows that "B" also has it, this in itself only adds greater uncertainty regarding the problem: now not only does "A" play a role, but also "B"; even the role of "A" must be redefined. Hence, claiming that studying the relationships of the new phenomenon "B" with the DFC "contributes" to the knowledge of the latter is false. Just as inaccurate as the opposite misconception, believing that the more associated phenomena are included, the greater the contribution to understanding the problem. Now we would have to see the correlation of each phenomenon with the DFC and the correlations of all of them with each other.[13] Within the framework of what we are developing, in any case, they are both a "contribution" and a "contribution" to our lack of knowledge.

Another very common misconception is the assumption that considering only one aspect of the phenomenon one wants to understand leads to greater precision, while precision decreases as other elements are included. Here we would ask: greater precision of what? In our example, obviously not of the DFC (Digital Cost of Carbohydrates). If we accept that "A" and "B" are related to it, looking only at phenomenon "A" will yield far less precise results regarding the DFC. So, what precision are we referring to? If we ask about the price of cars in Argentina, the production costs at a specific plant on a particular date create the illusion of greater precision than if we were discussing the oligopolistic nature of the industry. But greater precision is only achieved if our concern is measuring

[13] In this hodgepodge, we often find the rapid adherents of " multicausality ," among whom those who fabricate the role of "political," "economic," "social," etc., factors stand out. Or is everything not connected to everything? In other words, nothing.

the production cost at that plant at that time of year. Regarding the price of cars in our country, not a single ounce of precision has been added to the discussion.

These confusions are typical when using models to represent a problem and find solutions. There's no doubt that there's greater "simplicity" when fewer variables are selected for the phenomenon being explained. But this doesn't reduce the complexity of the problem or the answers. In this way, explanations and solutions do gain in simplicity ... and lightness!

But so far we've only encountered some of the problems that are unsolvable and force us to proceed tentatively. Let's move on. There are already defined correlations: "A" and "B" appear associated with the DFC in such a way. How do we assign to each of the identified phenomena the role they play in this association? In our example, if someone were to claim that the DFC contributes to generating "statist" leadership or hindering development (that is, hypotheses exactly opposite to those derived previously), how do we choose between the former and the latter?[14] Since the relationship between the phenomena themselves doesn't emerge from the phenomenon itself, but rather this link is assigned to it as a conjecture, the problem is unsolvable. Because even if the association is repeated, the phenomena will still not reveal the relationship between them.[15]

The blunders ("bloopers") made by economists are numerous. They generally select only a few phenomena and use the *ceteris stipulation. Using paribus assumptions* to freeze the rest, they force the possibility of quantification and rely on low-ranking correlations. Then, after taking the leap of making hypotheses based on these assumptions, they claim their conclusions are a "contribution." They fail to recognize that, in this framework, all knowledge is ephemeral and must be revised each time facts refute the theory developed about them; that the actions derived from this "theory" are as uncertain as the theory itself. In part, their survival depends on the difficulties of verifying or "falsifying"

---

[14] Because just as there are theories that maintain that human consciousness arises from itself and, therefore, can lead to a DFC due to erroneous ideas or base instincts, there are also theories that claim that it is the economic structure that determines the dominant ideology.

[15] Hicks naively argues that "we can only formulate a causal assertion if we possess some theory" [Hicks, op.cit., p. 31]. But the central point of "theories" is that they are built on the basis of the more or less arbitrary attribution of this type of link between phenomena. If the phenomena themselves stated what relationships they have, it would be pointless to formulate "theories."

the theoretical constructs, hypotheses, laws, or simple assertions about reality that current scientific knowledge points to. So, *if it isn't true, it's a good story* .

Other inconsistencies

However, two more types of problems remain that have no answer, but which the current form of scientific knowledge does not usually acknowledge, even though they are the inevitable conclusion of its approach. Let's suppose that all the obstacles have magically been overcome and a conclusion has been reached: the DFC is the result of "A." One might think that we are now in a position to act to improve public finances by eliminating "A." But "A" doesn't exist on its own; it is the result of something. We could hardly change the situation of the DFC by targeting "A" if its cause is "B"; we would have to aim at "B." But "B" doesn't exist in isolation either. It exists insofar as it is "C." Our marksman will search in vain for the target, which will keep slipping away from the end of his rifle.[16] There will inevitably be someone who mistakenly discovers that phenomenon "C" is the result of the DFC, thus completing the Circle of Ignorance.

DFC←«A»←«B»←«C»←DFC!

This " blooper " is more common than one might think. It becomes evident when, to get out of the problem, it is asserted that the "economic" also depends on the "political," knowing that, in turn, someone will return the compliment by saying that the "political" also depends on the "economic." The French regulationist school repeats this, in its own way, when it disaggregates the social process between accumulation regime and mode of regulation, and must account for their relationship [*CEBREMAP* , 1980, pp. 6-10].

There are those who try to defend this inconsistency by appealing to the validity of "interaction"—which some even assume is what dialectics is about—as if this type of indeterminacy were better than others. For example, Mandel

---

[16] Heymann and Navajas have reached this point—magically sidestepping all the problems mentioned so far—and claim: "the fiscal policy observed in Argentina (the DFC) is the result of a non-cooperative game," and that this description "helps us understand the facts." But this "non-cooperative" game must have some reason for existing. If it resides in Argentine fiscal institutions, we insist: those institutions must have some reason for existing. H&N defend themselves by saying that this would be looking for "deeper causes." But this approach is like going from one extreme to the other! What depth can we possibly gain by following this line of reasoning? What "facts" do they help us understand? That the DFC is the result of something whose cause remains unknown?

elevates it to the category of method when he argues: “Our thesis is that the history of capitalism and, at the same time, the history of its internal regularities and its developing contradictions, can only be understood and explained as a function of the interaction of…six variables” [Mandel, 1979, p. 40].

And the final tear of epistemology, perhaps the most painful: in light of that endless hunt, doesn't the hunter also have a reason for existing, for aiming or not, for hitting or missing the target? Reaching this point, we enter a zone of high tension. Questioning the issue of social inequality might be appealing, even suitable material for publishing "contributions," but questioning the actions of men is, at the very least, misguided. Are we going to doubt the capacity of our imagined hunter to shoot when he finds the target? If, after having traveled the arduous path of understanding social inequality in Argentina, and having concluded that its chronicity lies in, for example, the lack of a social agreement, are we going to question whether one can be achieved? Or is that not the "solution"? But this "explanation," what little it says—after the necessary sleight of hand—is that as long as there is no social agreement, there will be social inequality, and nothing more. Nothing clarifies the reasons for the current absence of such a social agreement, nor why it should exist now. Suggesting that it should have as many practical implications as proposing that people be happy.[17]

What, then, is to be done? We must manage meticulously somehow, taking into account all the limitations listed. Blaug, who recognizes these problems for all researchers and specifically for economists, and opposes the “anything goes” approach, recommends: “Scientific progress occurs only when we succeed in maximizing the role played by facts and minimizing that played by values. Ultimately, we can only rely on the mechanism of hypothesis testing to eradicate political and social prejudices…”[Blaug, op.cit., p.179].[18]

---

[17] H&N, for example, recommends that “fiscal policy determination should be carried out within the framework of collective bargaining and with more or less strict limitations on budget execution” and “the establishment of a more or less effective tax system.” In other words: if there is a financial disadvantage, limit budget execution (i.e., eliminate it altogether!); if there is non-cooperative behavior (the person responsible for that financial disadvantage), engage in collective bargaining!; and if there are inadequate institutions (that facilitate this harmful behavior), reform them!

[18] Marx already described the framework within which these types of responses occur: “The last form is the academic form (the previous one being apologetic, LLD), which acts ‘in historical terms’ and with wise moderation gathers ‘the best’ from all sources, and when it does so, it is not interested in contradictions; on the contrary, it is interested in breadth. In this way, all systems

Regarding human actions, there is a fairly widespread consensus among current theories of knowledge that they include a significant degree of imponderability; because humans are beings endowed with consciousness, because they possess creative capacity, because they are of a transcendent nature, and so on. Therefore, while they may be subject to certain restrictions, there is always a point of indeterminacy in their actions. This has served the political right to justify the sacrosanct concept of "individual freedom," the left to justify the transformative role of the " party"... and economists to propose countless absurdities.

An alternative route

This approach can leave a bitter taste, and rightly so. Theoretical constructs are gigantic hypotheses that trail behind simple facts, and the actions undertaken under the auspices of these representations are a path chosen in the dark. Responses to this situation often justify the need for a greater ideological component[19] or the search for ways to complement reason with other sources such as intuition, imagination, and so on.

Paradoxically, the capacity of science in general to provide courses of action regarding reality has continued to expand. But what is it based on to do so? What is its greatest strength, which is also, at the same time, its limit to knowledge?

As this process unfolds, it becomes clear that the more regular the phenomena involved in the reality we seek to understand, the more robust the theory developed about it becomes, opening up possibilities for specific actions. For example, regarding the sun's presence on Earth, Newton's Principia is sufficient to predict the hours of daylight for each day of the year with a very high probability, and this information can be used to forecast energy demand. One may not know what "gravity" is, or even criticize the attribution of "attraction" to bodies, but knowledge of the aforementioned regularity enables certain actions, including flying by relying on that same "gravity." Similarly,

---

become insipid, dulled, and peacefully gathered together in a miscellany. In this case, the heat of apologetics is tempered by the erudition that regards with benignity the other relations of economic thinkers, and allows them to float like foreign bodies in its mediocre porridge. As such works appear only when political economy has reached the end of its horizon as a science, they are at the same time the graveyard of this science" [Marx, 1975, pp. 413-14].

[19] Since science cannot be considered "neutral" and the researcher is situated within a specific social context, it is necessary to strengthen an ideological position, to start from a worldview from which to understand it. In other words, since we cannot know ... we can believe!

when faced with a set of symptoms typical of a known disease, a doctor knows—and no theory is needed here—what remedy to prescribe for the standard patient. He may not know the life process of an organism, but by observing the regular manifestations of its symptoms, he has a significant chance of curing his patient if he has the appropriate remedy. Similarly, a central bank economist who wants to lower the market interest rate, given certain general conditions, knows that to achieve this, he can, for example, offer money at a lower rate. Without even knowing what money is, certain monetary theories are enough for him to implement this policy and achieve his goal. In other words, they can transform reality to the extent that, knowing from experience the magnitude of a result, they act upon the measure of ongoing phenomena. But all of this depends on the periodicity of the phenomena involved remaining constant.[20]

It is evident, in this sense, that if we are dealing with repetitions in the behavior of phenomena—that is, their systematic occurrence in specific quantities over time and space—mathematics emerges as a suitable and powerful instrument for capturing this aspect. Its development and the respect it commands for any assertion accompanied by the corresponding formulation are not without reason.

But what happens when there are no regularities to observe, either because they cannot be found, because the identified phenomena cannot be quantified, or because the means to repeat the event in a controlled manner are unavailable? What place is left for those sciences whose object of study is scarce in such systematic repetitions? As we have seen, currently disseminated scientific knowledge only offers the possibility of proposing theories and hypotheses, and seeing if there is any way to test them against the facts. Its conclusions are meager and precarious.

In reality, whether or not there are regularities, when it comes to explaining phenomena, even their simple quantitative manifestation, the knowledge we use today is ineffective. Mathematics, the bastion of rigor when it comes to specifying a particular quantitative relationship, falls silent[21] because its

---

[20] Quantum mechanics was a search for new correlations that no longer existed in a given field. Keynesianism was the same.

[21] How lost those who dedicate themselves to measuring phenomena must feel when they have no idea what they're trying to quantify! On the one hand, there are studies filled with empty figures, and on the other, incredible absences of data. In the case of the DFC, obviously an expression of the appropriation of social wealth, it has yet to find, at least in that respect, anyone to measure it.

domain is that of indifferent differences—more or less—but of something specific.[22]

The Cinderella role that sciences dealing with social life are forced to play lies in the fact that they immediately confront the phenomenon itself. The fact that the deficit has a certain magnitude doesn't pose serious obstacles to measuring it. But with that, the economist hasn't even begun to answer why the public accounts are imbalanced, nor the reason for its size. And how are we to understand this reality we face, which, while remaining itself, becomes something else entirely; that is, which contains its own determination within itself? For the current form of scientific knowledge, this reality as such is ungraspable.[23] The principle of identity implies that its determination is imposed externally; therefore, it can only record the magnitude and periodicity with which events occur. The deficit, in a given quantity, is nothing more than that. It has no content other than its own form. What can it say, then, but that it is a deficit, which sometimes rises, sometimes falls? It cannot be a deficit and something else at the same time. While no one can deny that it is, at the very least, a social process, current theories of knowledge can only propose seeking correlations between the social process and the DFC, as if they were two phenomena external to each other. Or they can suggest that the DFC is a part of the social process, which will not advance anything since it would fail to explain the link between the part and the whole—a problem they have also been unable to solve.

This rule of the game that we are unraveling is also a way to resolve another irresolvable contradiction for this approach. Piaget, without providing an answer but confronted with the issue, posed it this way: "Our central problem is to understand innovations as necessary. They must not be understood as preformed, since in that case they would not be innovations. But neither can they be considered as contingent, since they would not be necessary and could not be 'understood'" [Piaget, 1977, p. 12]. The current form of scientific knowledge constantly clashes with this issue: on the one hand, it proclaims the absence of all necessity in things, and on the other, it seeks to understand them. It does not know why there is a DFC in Argentina and can only conjecture about its

---

[22] "Mathematics only considers magnitude, not essential difference" [Hegel, 1966, p. 31].
[23] "When in any object, or concept, the contradiction is shown (and there is nothing in which the contradiction cannot and should not be shown; that is, the opposing determinations - abstracting from the intellect is violently clinging to one of the determinations, an effort to obscure and distance from consciousness the opposing determination that is there)..." [Hegel, 1977, p. 58].

behavior, looking for other phenomena with which it appears associated, developing "hypotheses" about their relationships, and constructing a "theory" of what it wants to know, valid provisionally until the behavior of the phenomena no longer corresponds to the conjecture. In economics, with this form of scientific knowledge, the results are plain to see: blooper after blooper .

When Prebisch argued in his work that "conventional theories do not represent reality" and that "transformation requires a theory," he was simply remaining within the prevailing ideas on the matter. What needed to be transformed contained no inherent need (not even the need to be transformed), and neither did the actions taken to achieve it. Between his "diagnosis" and his "policy," only good intentions mediated. If "theoretical" constructs inherently imply that reality cannot be known, only conjectured about, then emerging proposals spin in a vacuum, and action is blind. This path, so well-trodden today, precludes action based on informed understanding.[24]

In the last decade, there have been no meaningful "theoretical" debates about capitalist countries like ours, and discussions about the course of events in the USSR and Eastern European countries are mere rhetoric. Meanwhile, the debate on public policy languishes, overwhelmed by the force of the adjustment processes. So-called "critical" thinking is reduced to incoherent babble. It is part of the ebb and flow of social life that some are in the limelight today and others tomorrow. But a particular characteristic of the current disarray of those who have been relegated to the sidelines is that they cannot articulate even a minimally acceptable explanation of what is happening; hence the confusion about what to do. In other times, when they were relegated to the sidelines, at least they maintained their worldviews, and what needed to be done was to keep pushing forward, knowing that better times would come. Now that the course has been lost, the responses range from analyzing very partial aspects of reality[25]—worrying about having some influence on it—to clamoring for new "theories,"[26] or denouncing that things are bad and getting worse and complaining about what is happening. All the while trying to maintain a strong faith and hope that all is not lost.

---

[24] See *Iñigo Carrera* , 1991.
[25] Municipal management, small and medium-sized enterprises, labor market segmentation and unemployment, economic groups, the environment, etc.
[26] They ask for a "theory" of the state, of action, of space, of "social subjects", and so on.

The challenge lies not only in understanding the reality before us but also in shaping the very course of our actions. Meanwhile, the economics and epistemology we've been taught are relegated to distractions, mere " bloopers " of scientific thought.